AMENDMENTS TO THE CLAIMS:

Please cancel claim 8, without prejudice, amend claims 1, 2, and 3, as shown below, and add new claims 16-22, as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application.

Claim 1 (currently amended): An image processing apparatus comprising:

an input unit for receiving a plurality of pixel data;

a controlling unit for selecting a desired transform from among discrete wavelet transform and discrete cosine transform, and providing a plurality of coefficients depending on said desired transform; and

a processing unit ~~which processes~~ for processing said pixel data using said plurality of coefficients to achieve said desired transform.

Claim 2 (currently amended): The image processing apparatus according to claim 1, wherein said input unit includes:

a storage unit for storing said pixel data; and

a rearrangement unit for receiving and rearranging said pixel data so as to be adaptive to said desired transform in response to a control signal received from said control unit;

wherein said processing unit processes said rearranged pixel data to achieve said desired transform.

Claim 3 (currently amended): The image processing apparatus according to claim 2, wherein said processing unit includes:

a plurality of adders, each for calculating a sum of two of said rearranged pixel data, said two of said rearranged pixel data being selected by said rearranged unit;

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a plurality of multipliers, each for calculating a product of associated one of said sums and associated one of said plurality of said coefficients;

an adder/subtractor unit for executing operation on said products received from said plurality of multipliers to obtain a result data of said desired transform.

Claim 4 (original): The image processing apparatus according to claim 1, wherein said controlling unit selects one procedure from among encoding and decoding through said desired transform, and develops said plurality of coefficients depending on said selected procedure.

Claim 5 (original): The image processing apparatus according to claim 2, wherein said controlling unit selects one procedure from among encoding and decoding through said desired transform, and develops said control signal to allow said rearrangement unit to be adaptive to said selected procedure.

Claim 6 (original): The image processing apparatus according to claim 1, wherein said controlling unit selects one of an irreversible 9/7 filter and a reversible 5/3 filter to be used when selecting said discrete wavelet transform, and develops said plurality of coefficients depending on said selected filter.

Claim 7 (original): The image processing apparatus according to claim 2, wherein said controlling unit selects one of an irreversible 9/7 filter and a reversible 5/3 filter to be used when selecting said discrete wavelet transform, and develops said control signal to allow said rearrangement unit to be adaptive to said selected procedure.

Claim 8 (cancelled):

Claim 9 (original): An image processing method comprising:

receiving a plurality of pixel data;

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selecting a desired transform from among discrete wavelet transform and discrete cosine transform;

providing a plurality of coefficients depending on said desired transform; and

processing said pixel data using said set of coefficients to achieve said desired transform.

Claim 10 (original): The image processing method comprising according to claim 9, further comprising:

rearranging said pixel data so as to be adaptive to said desired transform, wherein said processing is executed with respect to said rearranged pixel data to achieve said desired transform.

Claim 11 (original): The image processing method according to claim 10, wherein said processing includes:

providing pixel data pairs each including two of said rearranged pixel data,

calculating sums of respective pixel data pairs,

calculating products of said sums and said plurality of coefficients;

executing operation on said products to obtain a result data of said desired transform.

Claim 12 (original): The image processing method according to claim 9, further comprising:

selecting one procedure from among encoding and decoding through said desired transform, wherein said plurality of coefficients are developed depending on said selected procedure.

Claim 13 (original): The image processing method according to claim 10, further comprising:

selecting one procedure from among encoding and decoding through said desired transform,

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wherein said rearranging said pixel data is executed depending on said selected desired procedure.

Claim 14 (original): The image processing method according to claim 9, further comprising:

selecting one of an irreversible 9/7 filter and a reversible 5/3 filter to be used when selecting said discrete wavelet transform, wherein said plurality of coefficients are developed depending on said selected filter.

Claim 15 (original): The image processing method according to claim 10, further comprising:

selecting one of an irreversible 9/7 filter and a reversible 5/3 filter to be used when selecting said discrete wavelet transform,

wherein said rearranging is executed depending on said selected procedure.

Claim 16 (new): An image processing apparatus comprising:

an input unit for receiving a plurality of pixel data, wherein said input unit includes:

a plurality of flipflops which respectively stores therein one of said plurality of pixel data,

a rearrangement unit for receiving said plurality of pixel data from said plurality of flipflops and rearranging said received pixel data so as to be adaptive to said desired transform in response to a control signal received from said control unit,

wherein said processing unit includes:

a plurality of adders, each receiving two of said plurality of pixel data selected by said rearrangement unit to calculate a sum of said received two pixel data,

a plurality of multipliers, each calculating a product of associated one of said sums and associated one of said plurality of said coefficients,

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another multiplier receiving one of said plurality of pixel data from one of said flipflops and calculating a product of said received pixel data and associated one of said plurality of said coefficients,

a selector; and

an adder/subtractor unit,

wherein said selector selects one of outputs of said another multiplier and said adder/subtractor unit, and

wherein said adder/subtractor unit executes operation on said products received from said plurality of multipliers and an output of said selector to obtain a result data of said desired transform;

a controlling unit for selecting a desired transform from among discrete wavelet transform and discrete cosine transform, and providing a plurality of coefficients depending on said desired transform; and

a processing unit for processing said pixel data using said plurality of coefficients to achieve said desired transform.

Claim 17 (new): The image processing apparatus according to claim 16, wherein said input unit includes:

a storage unit for storing said pixel data; and

a rearrangement unit for receiving and rearranging said pixel data so as to be adaptive to said desired transform in response to a control signal received from said control unit;

wherein said processing unit processes said rearranged pixel data to achieve said desired transform.

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Claim 18 (new): The image processing apparatus according to claim 17, wherein said processing unit includes:

a plurality of adders, each for calculating a sum of two of said rearranged pixel data, said two of said rearranged pixel data being selected by said rearranged unit;

a plurality of multipliers, each for calculating a product of associated one of said sums and associated one of said plurality of said coefficients;

an adder/subtractor unit for executing operation on said products received from said plurality of multipliers to obtain a result data of said desired transform.

Claim 19 (new): The image processing apparatus according to claim 16, wherein said controlling unit selects one procedure from among encoding and decoding through said desired transform, and develops said plurality of coefficients depending on said selected procedure.

Claim 20 (new): The image processing apparatus according to claim 17, wherein said controlling unit selects one procedure from among encoding and decoding through said desired transform, and develops said control signal to allow said rearrangement unit to be adaptive to said selected procedure.

Claim 21 (new): The image processing apparatus according to claim 16, wherein said controlling unit selects one of an irreversible 9/7 filter and a reversible 5/3 filter to be used when selecting said discrete wavelet transform, and develops said plurality of coefficients depending on said selected filter.

Claim 22 (new): The image processing apparatus according to claim 17, wherein said controlling unit selects one of an irreversible 9/7 filter and a reversible 5/3 filter to be used when selecting said discrete wavelet transform, and develops said control signal to allow said rearrangement unit to be adaptive to said selected procedure.

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